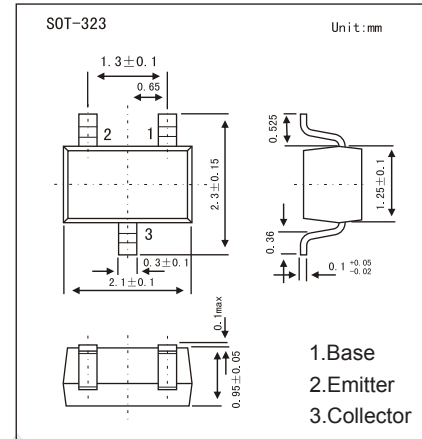


## PNP Transistors

### MMST5401 (KMST5401)

#### ■ Features

- Small Surface Mount Package
- Ideal for Medium Power Amplification and Switching
- Complementary to MMST5551



#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	-160	V
Collector - Emitter Voltage	$V_{CE0}$	-150	
Emitter - Base Voltage	$V_{EB0}$	-5	
Collector Current - Continuous	$I_C$	-600	mA
Collector Power Dissipation	$P_C$	200	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to 150	

#### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_C = -100 \mu\text{A}$ , $I_E = 0$	-160			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_C = -1 \text{ mA}$ , $I_B = 0$	-150			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = -100 \mu\text{A}$ , $I_C = 0$	-5			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = -120 \text{ V}$ , $I_E = 0$			-50	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -3 \text{ V}$ , $I_C = 0$			-50	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10 \text{ mA}$ , $I_B = -1 \text{ mA}$			-0.2	V
		$I_C = -50 \text{ mA}$ , $I_B = -5 \text{ mA}$			-0.5	
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -10 \text{ mA}$ , $I_B = -1 \text{ mA}$			-1	
		$I_C = -50 \text{ mA}$ , $I_B = -5 \text{ mA}$			-1	
DC current gain	$h_{FE(1)}$	$V_{CE} = -5 \text{ V}$ , $I_C = -1 \text{ mA}$	50			
	$h_{FE(2)}$	$V_{CE} = -5 \text{ V}$ , $I_C = -10 \text{ mA}$	60		300	
	$h_{FE(3)}$	$V_{CE} = -5 \text{ V}$ , $I_C = -50 \text{ mA}$	50			
Collector output capacitance	$C_{ob}$	$V_{CB} = -10 \text{ V}$ , $I_E = 0$ , $f = 1 \text{ MHz}$			6	pF
Transition frequency	$f_T$	$V_{CE} = -10 \text{ V}$ , $I_C = -10 \text{ mA}$ , $f = 100 \text{ MHz}$	100			MHz

#### ■ Marking

Marking	K4M
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